

# Constructing a Cycle Shop



## Materials needed

- 4 sq ft 3/8" outdoor plywood
  - 2 sq ft. 1/2" outdoor plywood
  - 2 sheets of "Precision Sheet" plastic ( cement block pattern)
  - Clear window glass: 2 sq ft. to allow for breakage
  - Zinc** came available at any stained glass studio as follows:
    - 1 length (usually 6') 1/2" wide Ushape
    - 1 length (usually 6' ) 3/16 wide Ushape
    - 1 length (usually 6' ) 1/4" wide Hshape
    - 1 length (usually 6') 7/16" Ushape
  - 1 tube of all purpose GE100% silicone rubber (clear) make sure it is for use indoor and outdoor
  - 1 tube of "Omni" glue
  - 1 to 2 roof shingles depending on the size of them ( could be left over from your last roofing project.
  - 1 tube of black RTV Black silicone rubber ( for sealing the roof)
  - 3/4" finishing nails (air gun or hammer)
  - Lepages Outdoor Carpenter's glue
  - 1 can of "Prime It" sealer (for sealing the raw wood before assembling ( available from Home Depot
  - 1 tube of "Lepages Instafill " caulking ( to fill in gaps left at the corners after you have glued the sheets of "Precision" plastic to the building.
  - Krylon spray paint primer to prime the sides and back of your building. Make sure this is for plastics and dries in 12 minutes.
  - Krylon spray paint (color of your choice) to give final coat to your building.
  - 1 sq. foot of aluminum (bought in rolls from Home Depot)
  - Krylon Plastic paint Black to paint the aluminum
- Although this is an extensive list you will have a lot of product left over for other projects.**

The finished building's dimensions are:  
 11 7/8 x 10" wide

**Mark all your pieces (back, side, roof, bottom)**

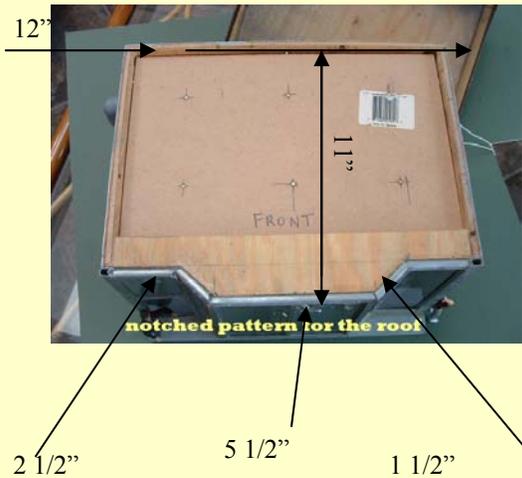
Cut one piece for the bottom 10" deep x 12" wide using 1/2" plywood

Cut two sides 8 1/2" high x 8 3/4" wide using 3/8" plywood

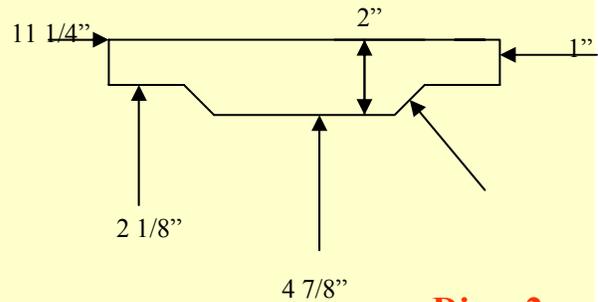
Cut one piece for the back 12" wide x 8 1/2" high using 3/8" plywood

Cut one piece for outside roof 11X12" using 1/2" plywood

**Diag.1**



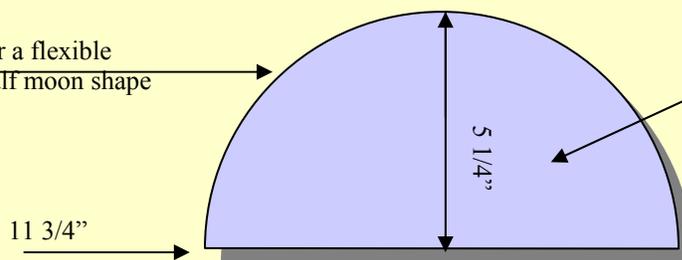
Cut one piece for the inside roof using 3/8" plywood



**Diag. 2**

Cut a half moon using 1/2" plywood as follows;

Use a bowl rim or a flexible ruler to get the half moon shape



You will place the name of your shop here

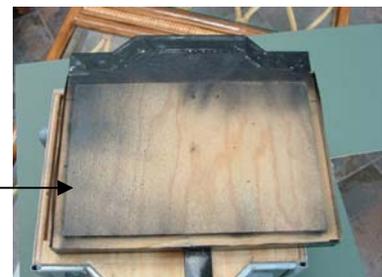
**Diag.3**

Cut one piece 11"X7 1/4" using 3/8" plywood

This piece will be nailed to the bottom of the outside roof piece.

See photo

**Diag 4**



# Assembly **step 1**

## Prime & paint the bottom piece gray.

Assemble the two sides, and the back together, placing them on the bottom piece even with the back. Nail the bottom piece to the sides and back. This step forms a three sided box with no top.



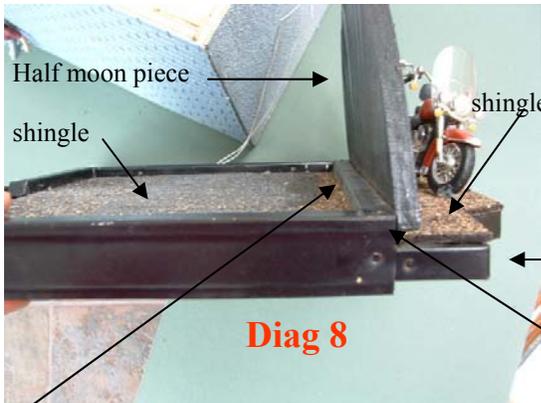
Nail the inside roof piece to the sides of the building.

### **Step 3**

Nail the piece 11 x 7 1/4" to the bottom of the roof as shown in dig.4.

### **step5**

Form a spout in Ushape with a piece of aluminium 1 1/2" wide & 2 1/2" long. Nail it to the back of the roof. On the top side of the roof, nail in 1/2" square trim around the perimeter of the roof up to and over the edge of the spout

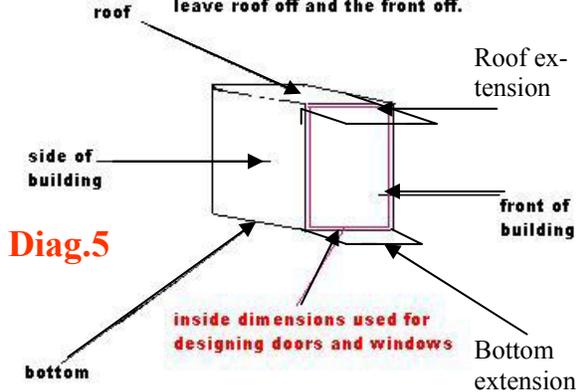


Cover this piece with aluminium same as the front edges.

### **Step 9**

diagram 1

when first assembling the building put the two sides, the bottom and the back together, leave roof off and the front off.



**Diag.5**

### **step2**

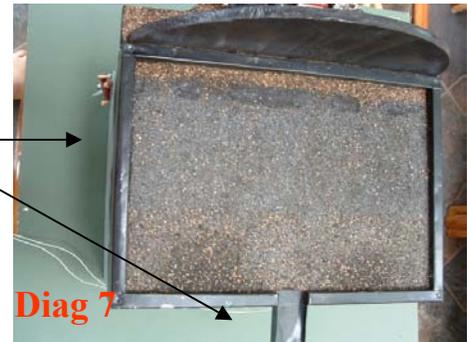
Glue a piece of 1/2" square trim to the inside corner of the building leaving 5/8" space( at the top at the four corners)

Cut a small piece of 1/2"sqare and glue it in place leaving 5/8" space at the top ( at the four corners)

### **step4**

Prime & seal your building inside & out.  
Prime & seal the roof

### **step6**



Cut 2strips of aluminium 1 1/2" wide and 12 " long

### **Step 7**

Cover the edges with the aluminum strips starting with 1/2 on the top of the roof , over the 1/2" square and down the edge and under the roof with the remainder . Nail in place securing

Cut 3 strips of aluminium 2" wide x 8 1/2" long

### **Step 8**

Cover the remainder of the 1/2'square pieces with aluminium starting with 1/2" on topof the roof, over the 1/2" square piece over the edges, and let the aluminium hang down by 1 3/8"

## Step 10

Prime the aluminium and the half moon piece.

Spray all the aluminium black. Paint the half moon piece for the top Black.

Cut the shingle pieces to fit inside the back end of the roof and on the top front end of the roof see diagram 8 and nail them in.

Paint the half moon black and nail it to the 1/2' square piece of trim (covered by aluminium) see diagram 8

## Step 11

# Windows & Doors



Ushape	Hshape
Came sizes:	Came size
#1 3/16"	
#2 1/4"	#5 1/4"
#3 7/16"	
#4 1/2"	
This material comes in 6' lengths	



Diag 10

If you think this is too difficult to attempt you may go right across in straight line with the windows and doors forgetting the indentation.

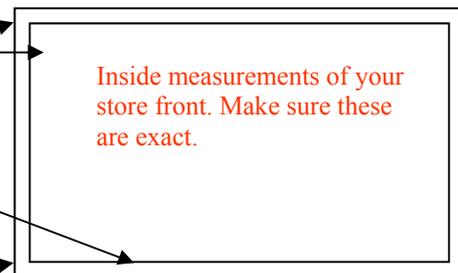
Take the inside measurements as indicated in diagram 5 draw these measurements on a piece of plywood. Take some 1/2" square trim pieces and nail them to the **outside** of these measurements.

**You have now made a jig for your store front**

In this square design your door (s) And windows roughly Taking into consideration the size of the came to be used.

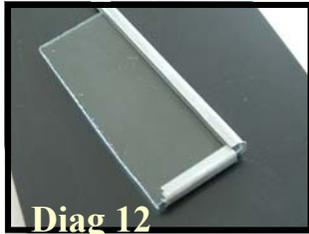
- 1/2" will be used on the bottom
- 7/16 will be used on sides & top
- 1/4" Hshape will be used as Mullions
- 3/16" will be used around the windows.

1/2"square pieces of trim



Diag 11

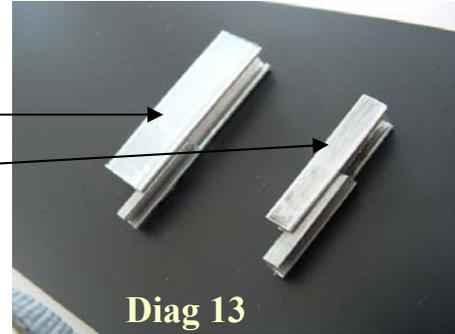
## Step 12



**Diag 12**

This shows 3/16 ushape came sliding into 7/16 ushape came

This shows 3/16 came sliding into 1/4 came, you may have to open the channel on the other side with a fid as shown in diag ( available at any starined glass ststudio)



**Diag 13**

This shows how you surround the cut piece of glass with 3/16 uhape came. All pieces should be done this way

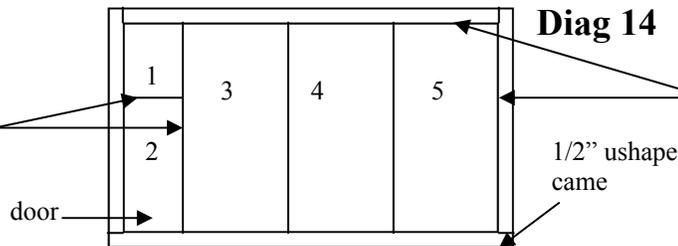


**Diag 15**

Working with the jig you constructed in step 12 start at the bottom and cut a piece of 1/2" came to fit the bottom. Cut two pieces of 7/16 the same length to fit the sides and put them in . Now cut the last piece of 7/16 to fit the top.

### Step 13

Cut a piece of 1/4 Hcame and put in place. Do the same here



**Diag 14**

7/16" ushape came is placed at the sides, and top of the opening for the windows.

### Step 14

Measure very carefully the size of the glass that would go in # 1 see above. Take into consideration that all the pieces of glass will be surrounded by 3/16" uhape came. **Cut the 4 pieces of came** to fit on the edges of this piece of glass. See [diag. 12](#) Apply silicone to the inside of the came and apply it to the glass. You will see the silicone ooze out. **Do not attempt to wipe off the silicone at this stage.**

You must let the silicone dry first, overnight preferable, then the next day cut away any surplus off the glass using an exacto knife.

### Step 15

Place the piece of glass in place making sure the glass including the 3/16" came frame fits inside the 7/16" ushape came at the top and on the left side , and inside the 1/4" hshaped came at the bottom and right side. If this piece fits properly apply clear silicone to all the channels and set the piece in.

✪ In some cases you might have to open up the channel in the Hshape came using a "fid" available at any stained glass studio for a very nominal price. See [diagram 15](#)

To really do a good job on the windows it is advisable to do one window at a time. Let it set and do another section. Silicone dries in about 1 hour to a fairly solid state. This will ensure that the windows are glued in straight!

**Continue in this fashion until all the pieces have been installed.**

**After the last piece has been glued in let everything set overnight.**

## Step 16

Put the window wall in place in the front opening. Mark a line on the floor at the bottom and on the top make your line on the bottom of the roof top. Remove the window wall.

With the building facing you glue a piece of 1/4" trim on the floor at the line making sure you can still see the line.

Do the same thing at the top gluing the piece **at the line** to the bottom of the inside roof piece.

These pieces will act as a stop when you place the front window wall in .



Diag. 15



## Step 17

**Check to see that the window wall fits in the opening.**

**This step is important!** Make sure that you apply clear silicone to the sides , bottom and top of the window wall. **Do not miss any spots!** This step assures you of a water tight fit! Place the window wall in and tape it to let it dry.

## Step 18

Cut a hole ( the size of the smaller extension of the elbow) at the top of your building to allow air to escape.



PVC elbow available in plumbing sup-



## Step 19

Place the roof on top of your building to check for fit.

## Finishing your building

### Step 20

Remove the roof for painting

Measure and cut the “ Precision “ sheet plastic to fit sides and back of your building. Using Omni Glue, spread the glue liberally and evenly using a scrap piece of plastic. Apply sheet to the building and press in place. Hold and press for a few seconds to make sure the glue is holding. Using “Instafill” fill in any spaces that are left open at the corners (where the two sides come together at the corners. Let the “Instafill” dry completely about 1 hour.

### Step 21

Prime your building using Krylon Primer.  
Spray paint your building using Krylon paint ( Colour of your choice)

### Step 22

Using clear silicone glue in the PVC elbow in the hole previously cut see [step 18](#)

### Step 23

Using black silicone apply it to all the open seams of the roof. Make sure everything is caulked very well.



**Congratulations! You have now built a wonderful waterproof cycle shop.  
You may light it following instructions on this web site , simply navigate to  
the article “Lighting your layout using garden lighting”.**

**★ You might think of putting a mirror on the back wall on the inside of your  
building to add depth and reflect all the motorcycles in the shop making it  
look double the size!**

**Finish the inside of your cycle shop as you wish.  
You may use this method to make all kinds of buildings.**